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NOTICE OF ALLOWANCE AND FEE(S) DUE

27155

7590

06/27/2008

AMIN, TUROCY & CALVIN, LLP
24TH FLOOR, NATIONAL CITY CENTER
1900 EAST NINTH STREET
CLEVELAND, OH 44114

EXAMINER

SAILL, EL HADJI MALICK

ART UNIT

PAPER NUMBER

2157

DATE MAILED: 06/27/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,491

06/30/2003

Eric J. Horvitz

MS303531.2/MSFTP453USA

3334

TITLE OF INVENTION: BOUNDED-DEFERRAL POLICIES FOR GUIDING THE TIMING OF ALERTING, INTERACTION AND COMMUNICATIONS USING LOCAL SENSORY INFORMATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	09/29/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

27155 7590 06/27/2008
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CLEVELAND, OH 44114

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,491 06/30/2003 Eric J. Horvitz MS303531.2/MSFTP453/USA 3334

TITLE OF INVENTION: BOUNDED-DEFERRAL POLICIES FOR GUIDING THE TIMING OF ALERTING, INTERACTION AND COMMUNICATIONS USING LOCAL SENSORY INFORMATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	09/29/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
SALL, EL HADJI MALICK	2157	709-207000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/122; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
 Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,491	06/30/2003	Eric J. Horvitz	MS303531.2/MSFTP453USA	3334
27195	7590	06/27/2008	EXAMINER	
AMIN, TUROCY & CALVIN, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			SALL, EL HADJI MALICK	
			ART UNIT	PAPER NUMBER
			2157	
DATE MAILED: 06/27/2008				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 953 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 953 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/611,491

Examiner

EL HADJI M. SALL

Applicant(s)

HORVITZ, ERIC J.

Art Unit

2157

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/10/08.
2. ☒ The allowed claim(s) is/are 1, 3-12, 14-26, 30-53 and 56-58.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 02/21/08; 03/18/08.
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Ario Etienne/
SPE, Art Unit 2157

DETAILED ACTION

1. This action is responsive to the amendment filed on April 10, 2008. Claims 1, 30-33, 35, 38 and 57-58 are amended. Claims 2, 13, 27-29, 54-55 and 59-62 are cancelled. Claims 1, 3-12, 14-26, 30-53 and 56-58 represent **BOUNDED-DEFERRAL POLICIES FOR GUIDING THE TIMING OF ALERTING, INTERACTION AND COMMUNICATIONS USING LOCAL SENSORY INFORMATION.**

2. EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Evan Perry (Reg. No. 62,190) for Himanshu S. Amin (40,894), the attorney in record, gave authorization for this Examiner's Amendment over the telephone during an interview. The claims amendments are as follow:

PLEASE AMEND THE CLAIMS AS FOLLOWS:

1. (Currently amended) A system that facilitates conveying at least one notification, comprising:

a processor coupled to a memory, the processor executing:

a prioritization component that infers an urgency of an obtained message, the inference is based at least in part on considerations of a message sender, a message type or message content;

a context analyzer that employs a decision model to infer information regarding an attentional state and an availability state of a user, the inference is based at least in part on an expected utility of conveying the obtained message to the user, the expected utility is determined through analysis of a value of conveying the obtained message versus a cost of conveying the obtained message, the context analyzer utilizes endpoint sensing of at least one device to gather context information of the user employed to evaluate value and cost of conveying the obtained message;

a resolution component that determines a time period to deliver the message based upon the urgency of the obtained message, the time period is a bounded deferral period that is bounded between a time the message is obtained and a deadline for making the user aware of the obtained message that contains information of value to the user, the bounded deferral period depends at least in part on the urgency of the information; and

a notification component that conveys the obtained message to the user based at least in part upon the inferred attentional and availability states and the bounded deferral period such that the message is conveyed within the bounded deferral period.

2. (Cancelled)

3. (Original) The system of claim 1, the endpoint sensing relates to a transmission reliability associated with a probability that a message is conveyed to a user given endpoint sensing of the device and/or estimates given background information.

4. (Previously presented) The system of claim 1, the bounded deferral is associated with at least one of sensors, calendar information, an alerting type and a time of day to determine whether a user is too busy to receive an alert currently or in a predetermined time in the future.
5. (Original) The system of claim 4, further comprising policies for processing a deadline associated with conveying notifications.
6. (Original) The system of claim 5, the policies include at least one of:
 - if the deadline is reached and an alert has not yet been delivered, the alert is delivered at the deadline;
 - if a deadline will pass and there is no purpose in waiting, then the alert is passed immediately.
7. (Original) The system of claim 4, the sensors determine a user current cost of interruption or state of busy-ness.
8. (Original) The system of claim 4, the sensors determine when a user available to receive information.
9. (Original) The system of claim 3, further comprising sensors that determine information relating to the transmission reliability.
10. (Original) The system of claim 9, the sensor information is passed to a central notification manager that is deliberating about where to send messages, or an endpoint device computes the transmission reliability from related sensors and passes the transmission reliability to the central notification manager.
11. (Previously presented) The system of claim 1, the bounded deferral period is employed to allow a system to take dialog initiative in a conversational application.

12. (Original) The system of claim 11, the application at least one of initiates a conversation or continues a conversation that has been interrupted by a user's attention being diverted elsewhere for a task or another conversation.
13. (Cancelled)
14. (Original) The system of claim 1, further comprising a gaze sensor to determine when a user observes a display.
15. (Original) The system of claim 14, further comprising a deferral period until a user looks away from an item of importance absorbing the user's attention.
16. (Original) The system of claim 9, the sensors compute a transmission reliability based on at least one of heat, motion, acoustical information, and wireless information.
17. (Original) The system of claim 1, further comprising a component that causes bounded deferral and transmission reliability to interact.
18. (Original) The system of claim 17, further comprising a component to determine if a transmission reliability has reached a threshold before a deferral tolerance is reached, a user can be notified via a first type of alert while bypassing a second type of alert.
19. (Previously presented) The system of claim 1, the bounded deferral period is applied to putting a caller on hold and enabling a break through over a predetermined time horizon.
20. (Original) The system of claim 19, the bonded deferral is applied by an endpoint device or by a standard communications system connected to sensors.

21. (Original) The system of claim 1, further comprising bounded deferral policies that are coordinated with other parameters.
22. (Original) The system of claim 21, the other parameters are related to a user's location and/or context.
23. (Original) The system of claim 1, further comprising tasks of predetermined length that are available in contexts where a user is reviewing media.
24. (Original) The system of claim 1, further comprising global bounded deferral policies that are viewed as approximation of more detailed decision-theoretic analyses.
25. (Original) The system of claim 1, further comprising a component to provide low time criticality messages during a breakthrough period of another message.
26. (Previously presented) The system of claim 1, when a bounded deferral policy has been reached, an endpoint device can be instructed to send a message back to a central notification manager or a sender of an alert, informing the central notification manager that the endpoint device is unsuccessful at relaying a message.
- 27-29. (Cancelled)
30. (Previously presented) The system of claim 1, the at least one device employs one or more sensors locally to determine a suitable time within an indicated bounded deferral period to alert a user.
31. (Previously presented) The system of claim 1, the prioritization component assigns more urgent messages a shorter bounded deferral period.

32. (Previously presented) The system of claim 1, at least one of the device and the notification component process multi-message interactions, such that when a message breaks through to the user, other parties can be allowed to come through to the user.

33. (Previously presented) The system of claim 1, at least one of the device and the notification component assigns a value for multiple messages that leads to a shorter bounded deferral period.

34. (Original) The system of claim 33, at least one of the device and the notification component determine a sum of the value of independent messages.

35. (Previously presented) The system of claim 1, the prioritization component includes one or more parameters on the bounded deferral data that is locally computed or determined based on local analysis of identity of a sender or nature of a message content.

36. (Original) The system of claim 35, the parameters are received as part of metadata or control data from a central notification manager, the metadata or control data included in a notification schema associated with a message.

37. (Original) The system of claim 35, the parameters are a function of a variable set by another user or a function of a priority value set by a notification manager.

38. (Previously presented) The system of claim 1, the at least one device is associated with one or more application models.

39. (Original) The system of claim 38, the application models include local calendar information to guide a device to hold alerts until after an event.

40. (Original) The system of claim 38, the application models include sound receptors that are employed to sense when someone has stopped speaking or sense a background noise.

41. (Original) The system of claim 38, the application models includes one or more motion devices to sense at least one of a user's movements, a user's has stopped talking, or when a car has stopped.

42. (Original) The system of claim 38, the application models process ringing after a bounded deferral period is reached and then again as backup after quiet or other sensor condition.

43. (Original) The system of claim 38, the application models pause until a person is in proximity or has touched a device before delivering a notification.

44. (Original) The system of claim 38, the application models automated cause deferral of a phone ring, wherein silence is applied for a predetermined number of rings while waiting for speech to stop.

45. (Original) The system of claim 44, the application models employ an agent picking up a phone if a user is sensed to be temporarily busy and asking a caller to hold on, then connecting through when the user has stopped speaking or if a bound has been reached.

46. (Original) The system of claim 45, the agent performs phone ringing deferral for selected people or people within specially indicated groups.

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47. (Original) The system of claim 38, the application models employ at least one of a Global Positioning System (GPS), an 802.11 signal strength sensor, an infrared proximity sensors, and a touch sensor.

48. (Previously presented) The system of claim 1, at least one of the device and the notification component determines at least one of attention-sensitive costs of disruption, a value of information, a loss based in decreased fidelity, and a transmission reliability associated with the use of an alerting modality of the device.

49. (Original) The system of claim 48, the transmission reliability of the device is represented as a probability p , $p(\text{transrel} \mid \text{context})$, that is the likelihood of getting through on the device given context, the context is a function, $f(\text{context})$ or $f(\text{sensed states})$.

50. (Previously presented) The system of claim 1, further comprising a subscription service provided at a notification source that enables users to tag notifications according to a predefined priority.

51. (Original) The system of claim 50, the predefined priority is assigned based upon a happening of a condition.

52. (Original) The system of claim 50, further comprising a subscription user interface to enable users to configure attributes of a notification.

53. (Original) The system of claim 52, the attributes are defined in a notification schema.

54-55. (Cancelled)

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56. (Original) A computer readable medium having computer readable instructions stored thereon for implementing at least on of the device and the notification component of claim 1.

57. (Currently amended) A system that facilitates communications, comprising:
a processor coupled to a memory, the processor configured to act as:
means for obtaining a notification message that contains information of value to a user;
means for sensing a contextual situation of the user;
means for processing a value of notifying the user of the message and a cost of notifying the user of the message based upon the sensed contextual situation;
means for determining an expected utility of notifying the user of the message based upon the value and cost;
means for employing the expected utility, the value and the cost in a decision model;
means for inferring an attentional state of the user based the decision model;
means for assigning an urgency to the notification message based upon considerations of message sender, message type or message content;
means for determining a bounded deferral period based at least in part on the assigned urgency, the bounded deferral period that relates to a maximum time that conveyance of the notification message can be deferred, the deferral period is bounded between a time when the notification message is obtained and the maximum time; and
means for conveying the notification message to the user in accordance with the bounded deferral period and the inferred attentional state such that the message is conveyed within the bounded deferral period.

58. (Currently amended) A computer-implemented method that facilitates conveying notifications, comprising:
using at least one device to infer information regarding an attentional state and/or location of a user, the inference is based at least in part on a temporal decision model;

determining a bounded deferral period that represents a time period from receipt of a message to a deadline for making a user aware of a message containing information of value to the user, the bounded deferral period is dependent on the urgency of the information of value, the urgency is inferred from considerations of at least one of a message sender, a message type or content;

employing a decision model, the decision model includes processing at least one of a value of actions or a cost of actions, the processing determines an expected utility with conveying the notification to the user, the value of actions or cost of actions determined at least in part on considerations of attentional focus and workload of the user, attentional focus represents the task or item occupying the attention of the user, the attentional focus and workload determined based at least in part on at least one of perceptual sensors, device interactions, a calendar, a current day or a current time;

employing the bounded deferral period, the inferred information and the decision model in connection with decision-making regarding conveying a notification to the user of the message, the decision-making determines if a suitable time exists to convey the notification within the bounded deferral period and before the deadline; and

conveying the notification to the user within the bounded deferral period and by at least the deadline specified by the bounded deferral period.

59-62. (Cancelled)

Allowable Subject Matter

3. Claims 1, 3-12, 14-26, 30-53 and 56-58 are allowed.
4. Pursuant to 37 C.F.R 1.109 and MPEP 1302.14, the following is an Examiner's statement of reasons for allowance:

The prior arts in record fail to teach "a bounded deferral period that relates to a maximum time that a notification message can be deferred wherein the time period is bounded between the time the notification is received and the maximum time; a context analyzer that employs a decision model to infer information regarding an attentional state and an availability state of a user, the inference is based at least in part on an expected utility of conveying the obtained message to the user, the expected utility is determined through analysis of a value of conveying the obtained message versus a cost of conveying the obtained message, the context analyzer utilizes end point sensing of at least one device to gather context information of the user employed to evaluate value and cost of conveying the obtained message; and a notification component that conveys the obtained message to the user based at least in part upon the inferred attentional and availability states and the bounded deferral period such that the message is conveyed within the bounded deferral period", as recited in independent claim 1. After an update search of class, subclass and cross-reference, Examiner came to conclusion that the case is allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/El Hadji M Sall/

Examiner, Art Unit 2157

/Ario Etienne/

Supervisory Patent Examiner, Art Unit 2157

Application Number**Application/Control No.**

10/611,491

Examiner

EL HADJI M. SALL

**Applicant(s)/Patent under
Reexamination**

HORVITZ, ERIC J.

Art Unit

2157